

MATERIAL SAFETY DATA SHEET

HYDROFORCE™

SECTION 1: IDENTIFICATION

PRODUCT NAME: Hydroforce

APPLICATION Oil well drilling fluid additive. Shale control agent

Emergency Phone Number: 281-713-8941

Effective Date: September 3, 2013

SECTION 2: HAZARDOUS INGREDIENTS

INGREDIENT NAME:	CAS No.:	CONTENTS:	EC No:
Alkyl Ammonium Derivatives	67-48-1	60-100%	200-655-4
Water	7732-18-5	30-60 %	231-791-2

The Full Text for all R-Phrases are Displayed in Section 16 COMPOSITION COMMENTS

The data shown is in accordance with the latest EC Directives.

SECTION 3: HAZARDS IDENTIFICATION

Not regarded as a health or environmental hazard under current legislation.

SECTION 4: FIRST AID MEASURES

INHALATION: Move the exposed person to fresh air at once. If respiratory problems, artificial respiration/oxygen. Get medical attention.

INGESTION: Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious. Get medical attention if any discomfort continues.

SKIN CONTACT: Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention promptly if symptoms occur after washing.

EYE CONTACT: Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

SECTION 5: FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Water spray, foam, dry powder or carbon dioxide.

SPECIFIC HAZARDS: By heating and fire, harmful vapours/gases may be formed.

PROTECTIVE MEASURES IN FIRE: Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear protective clothing as described in Section 8 of this safety data sheet.

ENVIRONMENTAL PRECAUTIONS: Do not allow to enter drains, sewers or watercourses.

SPILL CLEAN UP METHODS: Stop leak if possible without risk. Dike far ahead of larger spills for later disposal. Absorb spillage with suitable absorbent material. Shovel into dry containers. Cover and move the containers. Flush the area with water

SECTION 7: HANDLING AND STORAGE

USAGE PRECAUTIONS: Do not use contact lenses. Avoid spilling, skin and eye contact. Provide good ventilation.

STORAGE PRECAUTIONS: Store in tightly closed original container in a dry, cool and well-ventilated place

SECTION 8: EXPOSURE LIMITS AND PROTECTION

INGREDIENT COMMENTS No exposure limits noted for ingredient(s).

PROTECTIVE EQUIPMENT ENGINEERING MEASURES

Provide adequate general and local exhaust ventilation.

RESPIRATORY EQUIPMENT No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists.

HAND PROTECTION Chemical resistant gloves required for prolonged or repeated contact. such as, Nitrile. or Neoprene. **EYE PROTECTION** Wear approved chemical safety goggles where eye exposure is reasonably probable.

OTHER PROTECTION Wear appropriate clothing to prevent repeated or prolonged skin contact. Provide eyewash station.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE Liquid

COLOR Clear to Blue

ODOR Mild or Amine.

SOLUBILITY Soluble in water

BOILING POINT (°C) 125°C **pH-VALUE, CONC. SOLUTION** 6.5 - 8.5

FLASH POINT (°C) 98°C CC (Closed cup).

SECTION 10: STABILITY AND REACTIVITY

STABILITY Stable under normal temperature conditions and recommended use.

CONDITIONS TO AVOID Avoid heat, flames and other sources of ignition.

MATERIALS TO AVOID Acids. Oxidisers and bases

HAZARDOUS DECOMPOSITION PRODUCTS By heating and fire, harmful vapors/gases may be formed.

SECTION 11: TOXICOLOGICAL INFORMATION

INHALATION: Vapor may irritate respiratory system or lungs.

INGESTION May cause gastric distress, nausea and vomiting if ingested.

SKIN CONTACT Prolonged and frequent contact may cause redness and irritation.

EYE CONTACT Spray and vapor in the eyes may cause irritation and smarting.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY Contact Department for ecological information.

SECTION 13: DISPOSAL CONSIDERATIONS

DISPOSAL METHODS Recover and reclaim or recycle, if practical. Dispose of waste and residues in accordance with local authority requirements

SECTION 14: TRANSPORT INFORMATION

GENERAL The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

SECTION 15: REGULATORY INFORMATION

RISK PHRASES NC **Not classified.**

SAFETY PHRASES NC **Not classified.**

UK REGULATORY REFERENCES Chemicals (Hazard Information & Packaging) Regulations.

EU DIRECTIVES Dangerous Substance Directive 67/548/EEC.

Dangerous Preparations Directive 1999/45/EC.

GUIDANCE NOTES Workplace Exposure Limits EH40.

SECTION 16: OTHER INFORMATION

GENERAL INFORMATION

HMIS Health - 1 HMIS Flammability - 1 HMIS Physical Hazard - 0 J - Splash Goggles, Gloves, Synthetic Apron, Dust and Vapor Respirator.

INFORMATION SOURCES Material Safety Data Sheet, Misc. manufacturers. Product information provided by the commercial vendor(s).

Micromedex. European Chemicals Bureau -ESIS (European Chemical Substances Information System).

Drillchem believes the information contained in the MSDS to be accurate at the time of preparation and has been compiled using sources believed to be reliable. However, Drillchem makes no warranty, either expressed or implied, concerning the accuracy or completeness of the information presented. It is the responsibility of the user to comply with local, state and federal regulations concerning use of this product. It is the further responsibility of the buyer to research and understand safe methods of storing, handling and disposal of this product.